

UNIVERSITY OF MICHIGAN - DEARBORN

Endpoint

The Denali Crisis

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12/20/2011

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Overview

Appearance

- 1st /3rd person view
- The world will take on two environments an indoor and outdoor environment
- The indoor environments will be dark military like with flashing lights
- The Outdoor environment will be cloudy, dark, and a low fog
- These environments will give the player the sense of the sheer bleakness of the world and make this feel like a survivor based game
- With this feeling to the game it will be aimed at kids between the ages of 12 and 17

Story Abstract

- When: 2011
- Where: Denali Alaska
- Top secret research facility went Radio Silent after a routine supply drop. A team of highly trained operatives are sent in to investigate (the hunted)
- Must work their way through the research facility
- On their way in the soldiers are observed by the head scientist (the hunter). He will soon unleash his plot to perform his greatest experiment of all
- The team is turned against each other and must fight off their comrades to survive (multi-player deathmatch)

Gameplay

- Players will run around with their character destroying other characters with a variety of weapons available to them
- While running around the level players will navigate a facility to take players by surprise and to pick up a vehicle

Development Platform

- The platform is Torque 3d version 1.2
- Torque 3d is developed and supported by GarageGames
- This engine provides us with in-engine world editing, GUI creation, networking code, scripting and many other assets for creating 3d games.
- For this game we are using the first person shooter starting kit as the bases of making our game.
- The engine will also allow for us to create networked games over the internet or LAN through a client-server.
- Torque Constructor will be used to develop building structures in the game

Game Mechanics

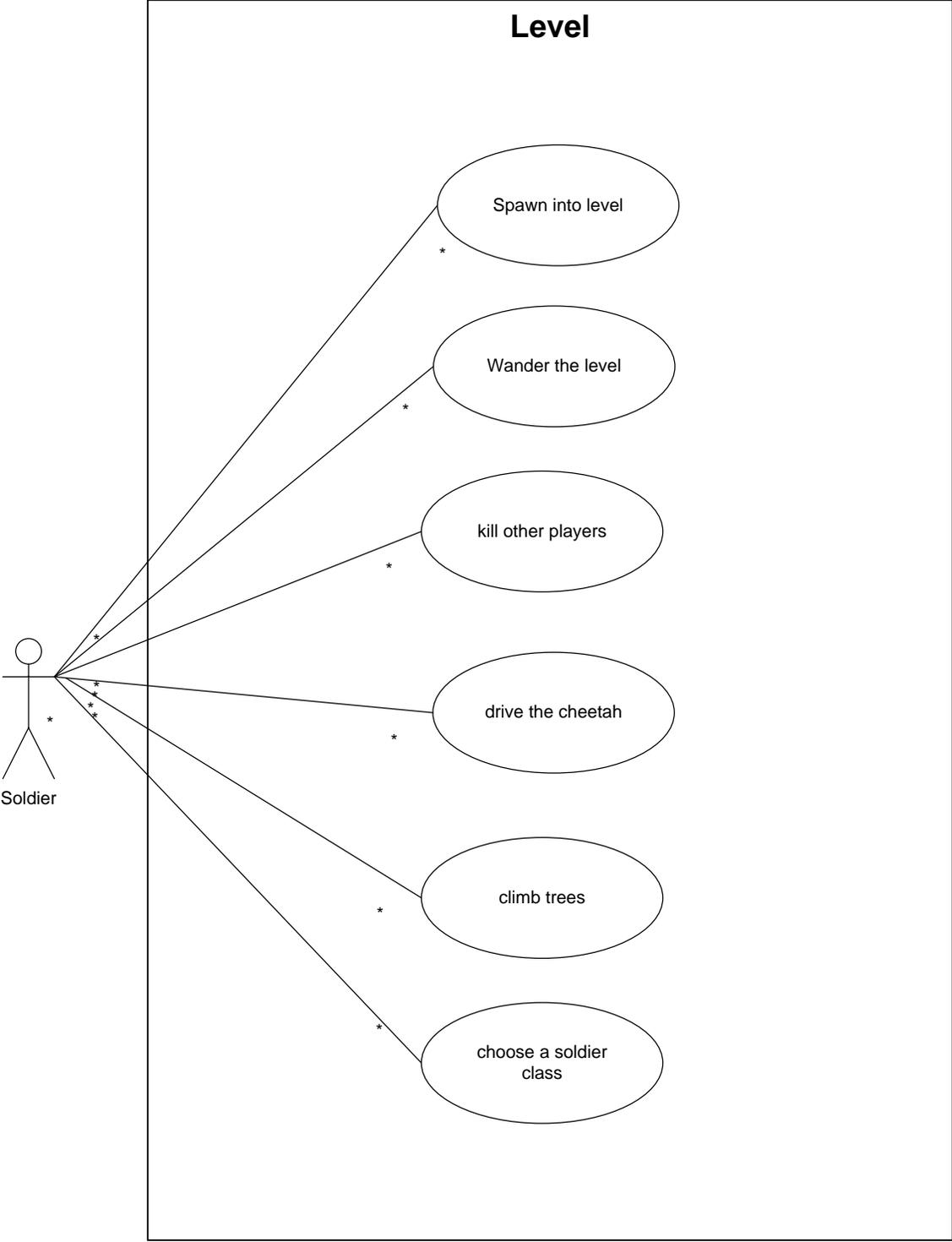
User Interface Description

- Screen shows what controls necessary to perform what actions
- Paths to lead characters to possible destinations



- Health points count
- Weapon selected with clip and total bullets remaining

Use Case



Level Summary

- **Level 1** : Navigate forest

- **Scene** : Start

Physical appearance :

- Dark wooded area lit by campfire
- Group of soldiers huddled

- **Scene** : Maneuver forest

Physical appearance :

- Rocky dirt path through forest dimly lit with torches leads up to mountain
- Torches to emphasize teleporter that will transport characters into the facility
 - **Character scripts** : Run on foot across terrain to facility

Sound effects :

- Gun shots when shooting other players
 - **Character scripts** : Run on foot across terrain to facility , shoot players while navigating terrain

- **Level 2** : Navigate the facility

- **Scene** : Facility interior

Physical appearance :

- Flickering lights in metal hallways, rooms, and ramps
- Green smoke drifting through halls to hinder sight

Sound effects :

- Gun shots when shooting other players
 - **Character scripts** : Shoot players while walking through facility

- **Scene** : Equipment storage room

Physical appearance :

- More well lit than the rest of the facility

- Crates stacked in various places around the room
- A vehicle is centered in the room under spot lights
- Connected to a large hallway leading to the outside

Character scripts :

- Walk around room moving into vehicle to enter
- Run or drive out of room to outside
- **Scene** : Maneuver to clearing

Physical appearance :

- Dark, dimly lit hilly terrain
 - **Sound effects** : Shots of characters being killed and wounded
- Path leads to clearing in the trees
- Terrain has some rocks for cover
 - **Character scripts** : Run and/or drive across terrain to clearing

User Interface Design

Key Screen Images



Campfire Spawn location



Navigate to research facility by following torches and going to teleporter .



Research facility interior



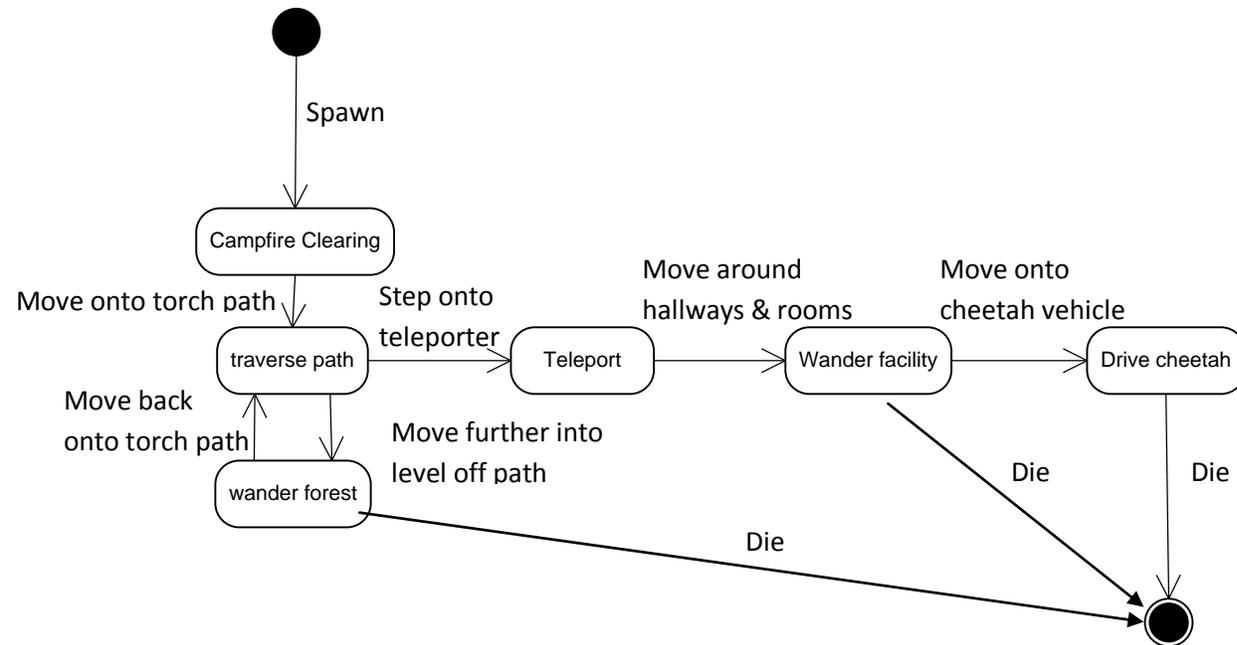
Storage room with cheetah

Control Summary

- Controls will be on either Xbox controller or with keyboard and mouse.
- Controls are as follows.

Action	Keyboard	Xbox Controller
Move Forward	W,Up	Left Stick Up
Move Backward	S,Down	Left Stick Down
Strafe Left	A,Left	Left Stick Left
Strafe Right	D,Right	Left Stick Right
Look left	Move Mouse Left	Right Stick Left
Look right	Move Mouse Right	Right Stick Right
Look Up	Move Mouse Up	Right Stick Up
Look down	Move Mouse Down	Right Stick Down
Jump	Space Bar	A
Fire Weapon	Left Mouse	Right Trigger
reload	R	X

State transition diagram



Design Rules

- Keep character and weapon selection to a reasonable number of choices
- Make sure the player is always working towards something
- Scene graphics are reasonably realistic
- Appropriate animations for all the actions necessary in the game play
- Don't over power computer's loading power or graphics card

Story Overview

Plot Summary

- Major accomplishments
 - Kill other soldiers quickly to avoid retaliation
 - Evade other character's attacks
- Minor tasks
 - Navigate terrain to reach the teleporter
 - Navigate the facility without falling into a trap or another player's ambush
 - Drive vehicle out of storage room

Story Board



- Action
 - Players spawn here
- Artwork
 - Smokey fire, trees, mountain in background, dark, fog ,and cloudy



- Action
 - Player Follows trail with torches that guides them to the facility entrance teleporter
- Artwork
 - Lighted torches and a trail, with fog.



- Action
 - Player moves around in forest or enters portal at end of trail
- Artwork
 - Forest, and hilly terrain surrounding a mountain where the research facility is located and torches with a teleporter in the middle

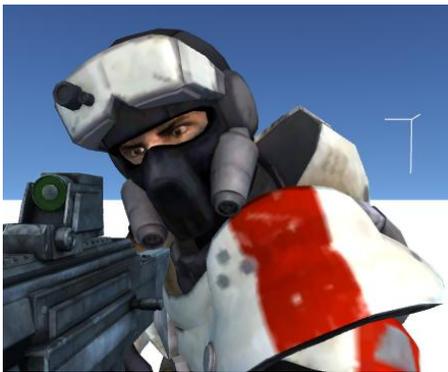


- Action
 - Run through hallways and rooms hunt other players
- Artwork
 - Dark metal floors, walls and ceilings with blinking lights



- Action
 - Players wander around storage room and get into a vehicle if they want to
- Artwork
 - Storage room with vehicle

Character Bible

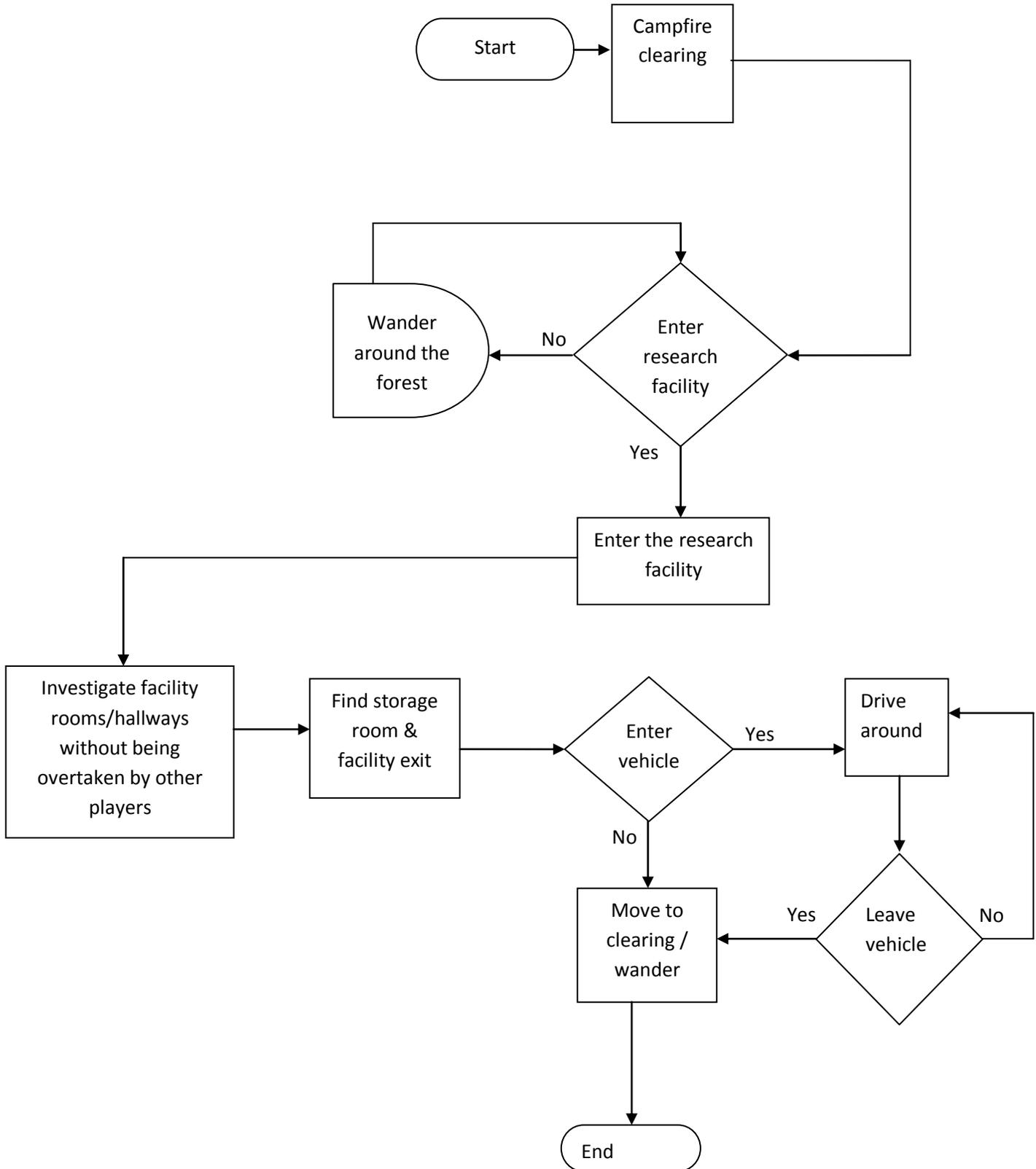


1. Soldiers

Special trained, experienced soldiers selected from the most outstanding troops in US. They are founded to accomplish the most dangerous and high-level security missions. With their excellent personal ability and team work they can always survive from hard circumstances and finish their tasks successfully.

Game Progression

Flowchart



Level and Scene Details

- Level 1
 - Spawn
 - Campfire clearing
 - Players see rocks marking entrance to a path and torches that mark it through the forest
 - Navigate forest to research facility entrance teleporter
 - Kill other players wandering in the woods
- Level 2
 - Maneuver through research facility
 - Wander hallways and rooms killing other players
 - Locate equipment storage room
 - Enter vehicle
 - Exit the research facility
 - Get out of the facility via the equipment storage room tunnel

Bibliography

- Torque 3D 1.2 game engine
- Garagegames art assets & sound clips

Lessons Learned

- Gathering the team and establishing a sound line of communication helps with designing a game.
- A 3D game is not as hard to work with as we thought but there is still much for us to learn about how to use it.
- Always communicate your ideas with your team mates they may like them.
- It's hard to move forward when people are not in the same room.
- Torque is fun to play with.